

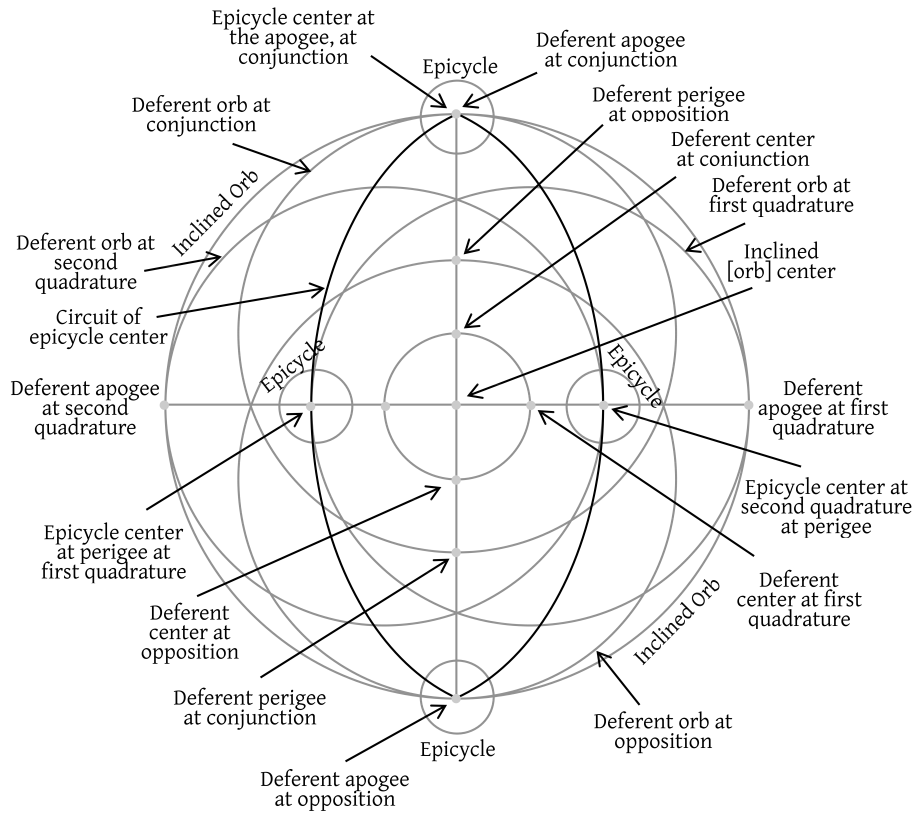
How to cite this document:

Naṣīr al-Dīn al-Ṭūsī. *Hall-i mushkilāt-i Mu'iniyya*, chapter four. In F. Jamil Ragep, Fateme Savadi, Sajjad Nikfahm-Khubravan. *al-Risāla al-Mu'iniyya (al-Risāla al-Mughniya) and its Supplement*. Vol. II, *English Translation* (Tehran: Mirath Maktoob), 180-181.

Section [Four]

An Explanation of the Circuit of the Lunar Epicyclic Center and the Manner in which the Circuit of the Center of the Lunar Epicyclic Orb Comes about Due to the Motions of the Inclined and Deferent [Orbs], Which Was Referred to at the End of the Chapter on the Configuration of the Moon

[1] [This] will be known by examining [the following] figure, as the deferent and epicyclic orbs have been drawn in each of the four positions vis-à-vis the Sun, i.e., conjunction, opposition, and the two quadratures. The circuit of the epicycle center is outlined in black. This figure is [drawn] in this manner, on the assumption that the Sun does not move. However, to be clear, since the Sun does move, the epicycle will describe more than a half revolution from conjunction to opposition and similarly from opposition to conjunction. For Mercury, if in place of the inclined [orb] we put the dirigent orb, one may conceive the exact same figure.



[Figure 1]